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REMARKS

In the September 2, 2005 notice of non compliant amendment, the Examiner states that Claim 20 has an improper identifier. In response to the notice of non compliant amendment, Applicants have corrected the identifier for Claim 20. The remaining amendments and remarks below are as submitted on the response dated June 20, 2005.

Applicants appreciate the consideration shown by the Patent Office, as evidenced by the March 23, 2005 Office Action. In that Office Action, the Examiner rejected Claims 1-37.

After careful consideration of the March 23, 2005 Office Action, Claims 4, 6, 15, 17, 19, 20, 21 and 37 have been amended. As such, Claims 1-37 remain in the case with none of the Claims being allowed.

Applicants respectfully request reconsideration of the application by the Examiner in light of the above amendments and the following remarks offered in response to the March 23, 2005, Office Action.

Information Disclosure Statement

There was a typographical error in the number of IDS pages submitted; the number of IDS submitted is 1 instead of 2, which the Examiner already received.

Specification

The trademarks are capitalized in the specification and accompanied by the generic terminology.

Paragraph 31, 41, and 45 have been amended to correct the typographical errors noted. The amendments are not related to patentability and does not involve any reasons of prior art.

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Applicants have amended Claim 4 to overcome the objection. The amendment was to correct the typographical error noted and is not related to patentability and does not involve any reasons of prior art.

Claim Objections

Applicants have amended Claims 15, 20, 34, and 37 to overcome the claim objections. The amendments merely correct the noted typographical errors and are not related to patentability and does not involve any reasons of prior art.

Claim Rejections – 35 USC §112

Applicants have amended Claim 37 to state that the mixture of reducing agent and metal complex solution is applied to the "smoothening coating" instead of the "gap", thereby resolving any antecedent basis issues of the "gap" and clarifying any issues of sequence. According to rules of claim construction for method claims, a sequence order of the method steps is not and should not be implied unless a claim expressly require so. Independent Claim 34 merely states applying the metal complex solution to the reducing agent. Consequently, the metal complex solution may be applied to the reducing agent simultaneously or sequentially.

Regarding when the degassing of the reducing agent occurs, as previously stated, according to rules of claim construction for method claims, a sequence order of the method steps is not and should not implied unless a claim expressly require so. Consequently, the degassing of the reducing agent may occur in a non-sequence dependent manner and the claim does not have to specify when degassing of the reducing agent occurs.

Applicants have amended Claims 6, 17, and 21 by replacing the trademark names with the proper chemical names, which are supported and provided in the specification.

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Rejections under 35 U.S.C. §103(a)

Kingsley in view of Akai

Claims 1, 4-5, and 9-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kingsley (U.S. Patent 5,179,284) in view of Akai (U.S. Patent 5,378,894).

Contrary to the assertion in the Office Action, scintillator elements comprising a reflective material having *a metallic reflective layer, a smoothening layer, and top layer* is not obvious over Kingsley in view of Akai. Kingsley only provides a reflective material on the top surface of the scintillator, while Akai provides reflective materials on sidewalls. However, Akai only discloses a blocking material of metallic thin film and *at least two polymer sheets*. Akai fails to disclose a reflective material comprising *a metallic reflective layer, a smoothening layer, and top layer*.

The test for non obviousness is not whether it would be merely possible to modify, but whether the prior art suggests the motivation to modify the references. “[T]he mere fact that the reference can be combined or modified does not make the resultant combination obvious unless the prior art suggests the desirability of the combination”. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); See MPEP section 2143.01.

“The initial burden is on the examiner to provide some suggestion or motivation to modify” and a reasonable expectation of success. Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985); See MPEP § 2144 -§ 2144. The teaching or suggestion to make the modification and the reasonable expectation of success must both be found in the reference. In re Vacck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 § 2143.03. When the motivation to modify the teachings of the reference is not immediately apparent, it is the duty of the examiner to explain why the modification of the teaching is proper.

In this case, the Office Action fails to demonstrate a motivation to modify Kingsley in view of Akai to disclose scintillator elements with reflective materials on the sidewalls of the

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scintillator elements, wherein the reflective materials comprise a *metallic reflective layer, smoothening layer, and top layer*. The Office Action has not demonstrated any motivation to modify the reflective materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer*. Just because the sidewalls may be coated with a *blocking material of metallic thin film and at least two polymer sheets* as disclosed in Akai does not demonstrate any motivation to modify the materials of Akai to include a *metallic reflective layer, a smoothening layer, and top layer* which may or may not be suitable for coating the sidewalls.

Furthermore, the Office Action also fails to demonstrate a reasonable expectation of success in modifying Kinsley in view of Akai to disclose scintillator elements with reflective materials on the sidewalls of the scintillator elements, wherein the reflective materials comprise a *metallic reflective layer, smoothening layer, and top layer*. In fact, the Office Action fails to demonstrate any expectation of success in modifying Kinsley in view of Akai to disclose scintillator elements with reflective materials on the sidewalls of the scintillator elements, wherein the reflective materials comprise a *metallic reflective layer, smoothening layer, and top layer*. Just because sidewalls may be coated with a *blocking material of metallic thin film and at least two polymer sheets* as disclosed in Akai does not demonstrate any expectation of success in modifying the reflective materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Applicants submit that Claims 2-20 depend from independent Claim 1. As presented above, applicants respectfully submit that the rejection of independent Claim 1 over any §103 has been overcome and independent Claim 1 is now in a condition for allowance. As independent Claim 1 is now in condition for allowance, the dependent Claims 2-20 thereon must also contain allowable subject matter and the §103(a) rejections are now moot.

Kingsley in view of Akai and further in view of Yoshida

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Claims 2-3, 6-8, and 21-26 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kingsley et al. and Akai, as applied to Claims 1, 5, and 20 above, and further in view of Yoshida (US Patent Application Publication #2002/0196628).

As discussed above, just because sidewalls may be coated with a *blocking* material of metallic thin film and *at least two polymer sheets* as disclosed in Akai does not demonstrate any motivation to modify and expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Yoshida also fails to disclose this missing motivation to modify and reasonable expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer*, which may be suitable for coating the sidewalls. Applicants therefore submit that the rejection of Claims 2-3, 6-8, and 21-26 under 35 U.S.C. §103(a) as being unpatentable over Kingsley et al. and Akai, as applied to Claims 1, 5, and 20, and further in view of Yoshida et al. is successfully overcome.

Applicants submit that Claims 2-3, 6-8, and 21-26 depend from independent Claims 1 and 20, respectively. As presented above, applicants respectfully submit that the rejection of independent Claims 1 and 20 over any §103 has been overcome and the Claims are now in a condition for allowance. As independent Claim 1 and 20 are now in condition for allowance, the dependent Claims 2-3, 6-8, and 21-26 thereon must also contain allowable subject matter and the §103(a) rejections are now moot.

Kingsley in view of Akai and Bahls

Claims 27-28, 31-32, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al. (US Patent # 5,179,294), in view of Akai (US Patent #5,378,894) and Bahls (US Patent # 3,983,266).

As discussed above, just because sidewalls may be coated with a *blocking* material of metallic thin film and *at least two polymer sheets* as disclosed in Akai does not demonstrate

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any motivation to modify and expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Bahls also fails to disclose this missing motivation to modify and reasonable expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer*, which may be suitable for coating the sidewalls. Applicants therefore submit that the rejection of 27 28, 31-32, and 34-37 Claims under 35 U.S.C. §103(a) as being unpatentable over Kingsley in view of Akai and Bahls is successfully overcome.

Kingsley, Akai, and Bahls, and further in view of Krulik

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Krulik (US Patent # 5,232,492).

As discussed above, just because sidewalls may be coated with a *blocking material* of metallic thin film and *at least two polymer sheets* as disclosed in Akai does not demonstrate any motivation to modify and expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Bahls and Krulik also fail to disclose this missing motivation to modify and reasonable expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer*, which may be suitable for coating the sidewalls. Applicants therefore submit that the rejection of Claim 29 under 35 U.S.C. §103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Krulik is successfully overcome.

Kingsley, Akai, and Bahls, and further in view of Kozlov

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et

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al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Kozlov et al. (US Patent # 6,455,175).

As discussed above, just because sidewalls may be coated with a *blocking material* or metallic thin film and *at least two polymer sheets* as disclosed in Akai does not demonstrate any motivation to modify and expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Bahls and Kozlov also fail to disclose this missing motivation to modify and reasonable expectation of success in modifying the materials of Akai to include a *smoothening layer and top layer*, which may be suitable for coating the sidewalls. Applicants therefore submit that the rejection of Claim 30 under 35 U.S.C. §103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Kozlov successfully overcome.

Kingsley, Akai, and Bahls, and further in view of Ferrell

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Ferrell (US Patent #6,180,524).

As discussed above, just because sidewalls may be coated with a *blocking material* or metallic thin film and *at least two polymer sheets* as disclosed in Akai does not demonstrate any motivation to modify and expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer* which may be suitable for coating the sidewalls.

Bahls and Ferrell also fail to disclose this missing motivation to modify and reasonable expectation of success in modifying the materials of Akai to include a *metallic reflective layer, smoothening layer, and top layer*, which may be suitable for coating the sidewalls.

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Applicants therefore submit that the rejection of Claim 33 under 35 U.S.C. §103(a) as being unpatentable over Kingsley, Akai, and Bahls, as applied to Claim 27 above, and further in view of Terrall is successfully overcome.

## Double Patenting

Claims 1, 4, 11, and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-2, 4, 12-13, 15, and 19 of copending Application No. 10/718339 (now US Patent 6,898,265).

Applicants are filing concurrently herewith a Terminal Disclaimer to overcome the provisional obviousness-type double patenting rejection.

In light of the amendment and remarks presented herein, Applicant submits that the case is in condition for immediate allowance and respectfully requests such action. If, however, any issues remain unresolved, the Examiner is invited to telephone the Applicants' counsel at the number provided below.

Respectfully submitted,

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Date

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